

INDUCTANCE ELEMENT AND PREPARATION METHOD THEREOFABSTRACT

The present invention relates to an inductance element and its preparation method. The inductance element comprises a coil structure, an insulation layer, a conductive metal layer and a metal core layer. The preparation method comprises, preparation of a coil structure, applying an insulation material on said coil structure to fix said coil structure, applying a conductive metal layer and plating a magnetic material on said conductive metal layer to form a multiple-layered core structure. In the preparation of the multiple-layered core structure, an intermittent plating approach is adopted, such that the cross-sectional area of the magnetic circuit may be increased. The coil structure applicable to this invention includes one prepared on a printed circuit board or a wound enameled wire coil structure. When a group of two coils is prepared, the inductance element may function as a transformer.